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Appl. No. 10/005,590*Amendments to the Claims*

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A platform for providing hosting services, comprising:

a computer cluster formed by a plurality of hardware-independent cluster nodes, said computer cluster including a control center; and

a plurality of virtual environments running on the computer cluster, wherein each virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory,

wherein multiple virtual environments running on the same node share the same operating system and the multiple virtual environments are running service processes, and

wherein said control center coordinates functions of said plurality of hardware-independent cluster nodes.

2. (previously presented) The platform as defined in claim 1, wherein said plurality of hardware-independent cluster nodes further comprises a distributed file system having a common name space.

3. (previously presented) The platform as defined in claim 2, wherein said distributed file system is integrated and optimized for said computer cluster.

4. (previously presented) The platform as defined in claim 2, wherein said distributed file system stores data for the plurality of virtual environments.

5. (previously presented) The platform as defined in claim 4, wherein each of said plurality of virtual environments further comprises:

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a unique administrative root user for each member of said plurality of virtual environments;

a file system template and file tree; and

operating system parameter configuration;

and further wherein each of said plurality of virtual environments does not require other dedicated hardware resources.

6. (previously presented) The platform as defined in claim 4, wherein said distributed file system further comprises:

means for making files containing transactions of any file system changes made in at least one of said plurality of virtual environments;

means for distributing said files containing the transactions to achieve the appropriate level of data accessibility; and

means for providing access to data from each member of said plurality of cluster nodes.

7. (currently amended) A method for maintaining a platform that provides hosting services, comprising:

forming a computer cluster from a plurality of hardware-independent cluster nodes;

establishing a control center for coordinating functions of said plurality of hardware-independent cluster nodes; and

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operating a plurality of virtual environments on the computer cluster, wherein each virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory, and

wherein multiple virtual environments running on the same node share the same operating system and the multiple virtual environments are running service processes.

8. (previously presented) The method as defined in claim 7, wherein the step of operating the plurality of virtual environments further comprises implementing a distributed file system having a common name space, wherein said distributed file system is integrated and optimized for each member of said plurality of hardware-independent cluster nodes.

9. (canceled)

10. (previously presented) The method of claim 8, wherein the step of operating said plurality of virtual environments further comprises:

establishing a unique administrative root user for each member of said plurality of virtual environments;

establishing a file system template and file tree for each member of said plurality of virtual environments;

implementing the operating system parameter configuration for each member of said plurality of virtual environments;

wherein said step of operating said plurality of virtual environments does not require any other dedicated hardware resources.

11. (previously presented) The method as defined in claim 10, wherein the step of operating said plurality of virtual environments further comprises:

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making files containing transactions of any changes in the file system made in at least one of said plurality of virtual environments;

distributing the files containing the transactions to achieve the appropriate level of data accessibility; and

providing access to data stored on the distributed file system from each member of said plurality of cluster nodes.

12. (previously presented) The method as defined in claim 10, wherein the step of operating each member of said plurality of hardware-independent cluster nodes further comprises:

establishing and configuring network connections;

providing access to the distributed file system containing the file system template for each virtual environment within said cluster node;

accessing the resources of said cluster node; and

utilizing said cluster node for launching new virtual environments.

13. (previously presented) The method as defined in claim 11, wherein the step of providing access to data from each of the plurality of virtual environments at said plurality of hardware independent cluster nodes further comprises restarting each virtual environment of a failed cluster node at another cluster node that has appropriate resources available.

14. (currently amended) A method for utilizing a hosting service platform, comprising:

requesting a service from an operating system;

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operating a virtual environment for delivery of the service to a user, wherein the virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory,

wherein the same operating system can be shared with other virtual environments running on the same computer and the virtual environments are running service processes; and

utilizing a distributed file system having a common name space for use by the virtual environment.

15. (previously presented) The method of claim 14, wherein the step of operating said virtual environment further comprises installing an application into the virtual environment.

16. (previously presented) The method of claim 14, wherein the step of operating said virtual environment further comprises configuring an application.

17. (previously presented) The method of claim 14, wherein the step of operating said virtual environment further comprises launching an application of said operating system from said virtual environment.

18. (previously presented) The method of claim 14, wherein the step of operating said virtual environment further comprises repairing remotely a failed software configuration of said virtual environment.

19. (previously presented) The method of claim 14, wherein the step of utilizing a distributed file system further comprises achieving a desired fault tolerance level.

20. (currently amended) A platform that provides a hosting service, comprising:
a plurality of hardware-independent cluster nodes forming a computer cluster;

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a plurality of virtual environments supported by the cluster nodes and providing hosting services, wherein each virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory,

wherein multiple virtual environments running on the same node share the same operating system and the multiple virtual environments are running service processes; and

a control center that coordinates functions of the computer cluster.

21. (previously presented) The platform of claim 20, wherein the plurality of hardware-independent cluster nodes further comprises a distributed file system having a common name space.

22. (previously presented) The platform of claim 21, wherein the distributed file system is integrated and optimized for the automated computer cluster.

23. (previously presented) The platform of claim 21, wherein the distributed file system stores data for the plurality of virtual environments.

24. (previously presented) The platform of claim 21, wherein the distributed file system further comprises:

means for making files containing transactions from any file system changes made in at least one of the plurality of virtual environments;

means for distributing the files containing the transactions to achieve a desired level of data accessibility; and

means for providing access to the distributed storage system from each of the plurality of cluster nodes.

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25. (previously presented) The platform of claim 20, wherein each of the plurality of virtual environments further comprises:

a unique administrative "root" user for each of the plurality of virtual environments;

a file system template and a portion of a namespace dedicated to the virtual environments; and

operating system parameter configuration,

wherein each of the plurality of virtual environments does not require other dedicated hardware resources.

26. (previously presented) The platform of claim 20, wherein each of the plurality of virtual environments does not require other dedicated hardware resources.

27. (previously presented) The platform of claim 20, wherein each of the plurality of virtual environments does not require locking of hardware resources that are supported by standard operating system mechanisms.

28. (canceled)

29. (previously presented) The platform of claim 20, wherein each of the plurality of virtual environments does not require emulation of hardware resources.

30. (currently amended) A method for providing a hosting services platform comprising:

forming a computer cluster from a plurality of hardware-independent cluster nodes;

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operating a plurality of virtual environments supported by the nodes, wherein each virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory,

wherein multiple virtual environments running on the same node share the same operating system and the multiple virtual environments are running service processes;

providing hosting services from the virtual environments; and

establishing a control center for managing functions of the computer cluster.

31. (previously presented) The method of claim 30, wherein the step of forming the cluster further comprises implementing a distributed file system having a common name space,

wherein the distributed file system is integrated and optimized for each of the plurality of hardware-independent cluster nodes.

32. (previously presented) The method of claim 31, wherein the step of operating the plurality of virtual environments further comprises:

establishing a unique administrative "root" user for each of the plurality of virtual environments;

establishing a file system template and file tree for each of the plurality of virtual environments; and

configuring operating system parameters for each of the plurality of virtual environments.

33. (previously presented) The method of claim 32, wherein the step of forming the computer cluster further comprises:

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establishing and configuring physical network connections;
providing access to the distributed file system containing the file system template for each virtual environment within the cluster;
utilizing the cluster node for launching the virtual environments; and
using the virtual environments for accessing resources of the cluster that service user requests.

34. (previously presented) The method of claim 33, wherein the step of providing access to the distributed file system further comprises restarting each virtual environment of a failed cluster node at another cluster node that has available resources.

35. (previously presented) The method of claim 30, wherein the step of operating the plurality of virtual environments does not lock hardware resources that are supported by standard operating system mechanisms.

36. (canceled)

37. (previously presented) The method of claim 30, wherein the step of operating the plurality of virtual environments further comprises:

making files containing transactions of any changes in a file system made in at least one of the plurality of virtual environments;

distributing the files containing the transactions to achieve a desired level of data accessibility; and

providing access to data from each of the plurality of cluster nodes.

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38. (previously presented) The method of claim 30, wherein the virtual environments do not emulate hardware resources.

39. (currently amended) A method for utilizing a hosting service platform in an operating system comprising:

receiving a request for a service from the operating system;

operating a virtual environment adapted to respond to the request for service, wherein the virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory,

wherein multiple virtual environments running on the same computer share the same operating system and the multiple virtual environments are running service processes; and

utilizing a distributed file system with a common name space to respond to the request for service.

40. (previously presented) The method of claim 39, wherein the step of operating the virtual environment further comprises installing an application into the virtual environment.

41. (previously presented) The method of claim 40, wherein the step of operating the virtual environment further comprises configuring the application.

42. (previously presented) The method of claim 39, wherein the step of operating the virtual environment further comprises launching the application.

43. (previously presented) The method of claim 39, wherein the step of operating the virtual environment further comprises repairing remotely a failed software configuration of the virtual environment.

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44. (previously presented) The method of claim 39, wherein the step of utilizing the distributed file system further comprises achieving a desired fault tolerance level.

45. (currently amended) A computer program product for providing a hosting services platform, comprising a computer usable medium having computer program logic recorded thereon for controlling a processor, the computer program logic comprising:

computer program code means for automating a computer cluster formed by a plurality of hardware-independent cluster nodes;

computer program code means for operating a plurality of virtual environments supported by the nodes, wherein each virtual environment virtualizes a full service operating system and does not require dedicated physical random access memory;

wherein multiple virtual environments running on the same node share the same operating system and the multiple virtual environments are running service processes;

computer program code means for providing hosting services from virtual environments; and

computer program code means for establishing a control center for managing functions of the computer cluster.

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